CENGN

COSM INNOVATION HIGHLIGHT

cosm ®

COMPANY OVERVIEW

Cosm Medical is a medical device startup leveraging data and AI to personalize care for women suffering from pelvic floor disorders such as prolapse and incontinence. Founded in 2017, Cosm has developed a proprietary ultrasound-based measurement, AI-driven cloud software, and is leveraging 3D printing to create Gynethotics, or the world's first commercial custom pessary.

LOCATION: TORONTO, ON

TECHNOLOGY

Data Centre and Cloud

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PELVIC FLOOR DISORDER TREATMENTS TODAY

Pelvic Floor Disorders (PFD) - which affect 1 in 4 adult women and half of women over the age of 80 occur when the muscles and tissue of the pelvic floor and surrounding pelvic organs become weakened or damaged. Currently, there are 2 common treatments for PFD's - surgery or pessaries. Surgery can create major issues and one of the common surgical procedures for prolapse, transvaginal mesh implants, were banned by the FDA in 2019. Unfortunately, current gynecological prosthetics called pessaries aren't great either as they're fitted by trial and error with 50% of patients not using them within 2 years and many long-term users suffering complications.

USING AI TO DESIGN CUSTOM PESSARIES

Looking to increase the quality of treatment for pelvic floor disorders, Cosm Medical developed a digital urogynecology platform to create Gynethotics – the world's first customized pessaries for women with PFD. Working with world-leading technologists and clinicians, the team at Cosm uses a blend of AI and medical image analysis to find customized measurements for each patient. Once the measurements are found, the AI model predicts the best fitting Gynethotic design to ensure proper fit, support and ease of management. By creating custom pessaries, Cosm Medical aims to increase the access and quality of treatment while also decreasing long-term complications for women with PFD.

IMPROVING THEIR PRODUCT AND MITIGATING RISKS

With CENGN's infrastructure, Cosm Medical validated their 'digital urogynecology' capability that uses medical imaging machine learning algorithms on the Cloud. Cosm's testing made some product improvements, including hardware specifications and architecture requirements. The company also identified the cost of providing their services to clients. Leaving the CENGN Testbed, Cosm Medical made significant improvements to their product, and CENGN is delighted to provide them with the infrastructure they required for testing.

> "Thanks to CENGN, we're now able to quantify the cost structure and expansion plans based on our yearly forecasts."
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> **Aye Nyein San**
> CTO, Cosm